

**IN THE UNITED STATES DISTRICT COURT
FOR THE EASTERN DISTRICT OF VIRGINIA**

Erik B. Cherdak
600 Cameron Street
Alexandria, Va. 22314

Plaintiff, Pro Se,

v.

Humana, Inc.
500 West Main Street
Louisville, KY 40202

Defendant.

2014 AUG 26 P 1:05

CLERK OF DISTRICT COURT
ALEXANDRIA, VIRGINIA

Case No. 3:14-cv-598(HEH)

**COMPLAINT
FOR PAST PATENT INFRINGEMENT**

JURY TRIAL DEMANDED

PLAINTIFF'S COMPLAINT FOR PAST PATENT INFRINGEMENT

Plaintiff Erik B. Cherdak (hereinafter "Plaintiff" or "Cherdak"), *Pro Se*, and in and for his Amended Complaint against the above-named Defendant, asserts the following:

THE PARTIES

1. Plaintiff is an individual operating a his principal place of business at the address listed in the caption of this Complaint. At all times relevant herein, Plaintiff has been and is the named inventor in and owner of U.S. Patent Nos. 5,343,445 and 5,452,269 (hereinafter referred to as the "patents-in-suit") and all reexamination certificates related thereto.

2. Defendant Humana, Inc. is a national company that maintains its principle place of business as specified in the caption of this Complaint. On further information and belief, Defendant regularly does business and has engaged in acts of past patent infringement this judicial district of Virginia, USA.

JURISDICTION AND VENUE

3. This is an action for past patent infringement of U.S. Patent Nos. 5,343,445 and 5,452,269 (per reexamination on two occasions) to Cherdak under the Laws of the United States of America and, in particular, under Title 35 of the United States Code (Patents – 35 USC § 1, *et seq.*). Accordingly, Jurisdiction and Venue are properly based in accordance with Sections 1338(a), 1391(b) and (c), and/or 1400(b) of Title 28 of the United States Code.

4. Defendant has in the past engaged in the design, importation, distribution, sale, and offering for sale of products including, but not limited to, those which incorporated technologies and the use of methods covered and claimed by the patents-in-suit. At all times relevant herein, Defendant had engaged in the infringement of and/or induced the infringement of and/or contributed to the infringement of the patents-in-suit patent throughout the United States, including, but not limited to, in this judicial district of Virginia, USA.

FACTS

5. On July 6, 1993, Plaintiff filed a patent application entitled “Athletic Shoe with Timing Device” which resulted in the issuance of the U.S. Patent 5,343,445 on August 30, 1994. On August 29, 1994, Plaintiff filed a continuation-type application also entitled “Athletic Shoe with Timing Device” which resulted in the issuance of the U.S. Patent No. 5,452,269 on September 19, 1995. The patents-in-suit cover and claim products like those used, made, imported, offered for sale, marketed, and sold by Defendant directly and indirectly under The U.S. Patent Act. The patents-in-suit have successfully gone through the USPTO’s expert review on three (3) separate occasions: First, in the early 1990’s during initial examination proceedings; Second, during *ex parte* reexamination proceedings in the 2007-2008 time-frame; and Third, during *ex parte* reexamination proceedings in 2012. Such reexamination proceedings resulted, *inter alia*, in the

confirmation of many claims without amendment and the addition of new claims submitted to additionally define the claimed inventions of the '445 and '269 patents. The patents-in-suit along with their reexamination certificates are attached hereto at **Exhibits 1** through **6**. Plaintiff owns all right, title and interest and to the patents-in-suit and, as such, has the full right to bring this action for patent infringement and to seek all remedies in law and in equity for acts of patent infringement occurring in the past, present and future.

6. Defendant, has in the past imported, distributed, sold and offered for sale infringing products in unauthorized ways under the patents-in-suit. For example, Defendant manufactured and/or marketed and/or distributed and/or imported and/or facilitated the induced use of activity trackers and monitors for sensing activity metrics related to foot action (i.e., steps) during activities such as during running, jumping, walking and stepping. In many, if not all cases, Defendant's activity trackers were configured with clipping devices and were marketed for wear on a person's shoe to drive automatic gathering of activity data for later upload to a website for remote monitoring of activity-based metrics that may be derived from steps taken, etc. For example, and not by limitation, the following activity tracker was sold by Defendant as part of Human Vitality™ product and service offerings:

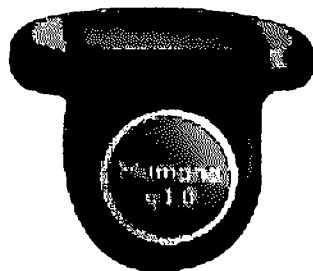


FIG. 1: The HUMANA VITALITY Activity Tracker Product – Model “g1.0”

7. The Humana Activity Tracker (g1.0) shown in FIG. 1 above, is the same activity tracker that was used and sold by Virgin Pulse, Inc. in connection with their Virign HealthMiles™

activity encouragement and “activity points” reward systems and tracking and monitoring product lines and services. Such Virgin Pulse, Inc. devices were the subject of similar litigation in U.S. District Court for the Eastern District of Virginia (Alexandria Division) styled as *Cherdak v. Virgin Health Miles, Inc.*, Case No., 1:13-cv-01315-LO-JFA. That case resolved by settlement in early 2014 and was ultimately dismissed. On information and belief, the Virgin HealthMiles™ activity tracker devices and systems directly compete in the rewards-based health-improvement marketplace, but nonetheless, utilize the same activity trackers manufactured by the now defunct SPORTBRAIN, INC./sportbrain.com company. The Virgin HealthMiles™ SPORTBRAIN based activity tracker device appears as follows and was intended to be worn on a person’s shoe by clipping the tracker to a shoe just like the Human Vitality g1.0

Accused Device:



FIG. 2: The Virgin HealthMiles™ Licensed Device Along Side the Humana Vitality™ Device and the Sportbrain™ Device (note the CLIP on the back-side of the devices)

8. SPORTBRAIN devices like those shown in FIG. 2 above and including the HUMANA VITALITY “g1.0” activity tracker device may be reliably used when mounted/affixed to a person’s shoe to determine foot-based activities including steps. FIG. 3 shows the use of such an activity tracker when mounted on a person’s shoe. According to Defendant, so long as the accused products (e.g., the HUMANA VITALITY “g1.0” activity tracker) were worn tight to a

person's body and in alignment with a person's knee, accurate sensing can take place. *See Exhibit 7.* Additionally, Defendant admitted that such activity trackers may be worn "on your shoe" in terms of a "best location" for gathering accurate data about foot based action.



FIG. 3: A SPORTBRAIN based activity tracker like the activity trackers shown in FIG. 2, above, as worn on a person's shoe to sense and measure foot action.

9. As shown in **FIGS. 1-3**, above, Defendant's "g1.0" device includes a sensor device to determine foot-based action, a clip-member to enable affixation of the activity tracker to a person's shoe or other article of clothing, and a display device to provide visual indications of step-related messages including, but not limited to, step counts.

10. Humana also sold another activity tracking product known as the Humana Vitality Tracker "g2.0" device as shown below in **FIG. 4** below:

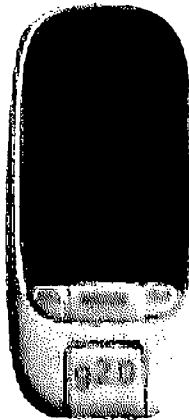


FIG. 4: The HUMANA VITALITY Activity Tracker "g2.0"
(Not yet considered and accused device)

11. The HUMANA VITALITY ACTIVITY TRACKER g2.0 device is not yet considered an accused product as of the date of commencement of the instant lawsuit. Discovery in this case will reveal whether the g2.0 device was sold during the enforceable periods related to the patent-in-suit. Defendants are on notice that they should preserve all sales documentation relation to the g2.0 device so as to determine if that device was sold in commerce prior to July 13, 2013.

12. This Complaint and this action are NOT limited to the EXEMPLARY products shown and identified above. Due discovery in this case will reveal the true scope of all accused products that are subject to Plaintiff's claims for past patent infringement. Accordingly, any reader of this Complaint should NOT assume that the foregoing identification of "accused products" is in any way exhaustive. For example, while the "g2.0" device is shown and described and as Defendant is notified of its potential for past infringement, that device is not yet considered an "accused product" until discovery reveals the details of its sale in interstate commerce.

13. Defendant's VITALITY branded activity tracker devices as illustrated in FIG. 1 was designed to facilitate web-based activity tracking *via* websites constructed and/or operated by Defendant. Such websites provide remote tracking of data derived from users wearing their HUMANA VITALITY activity trackers. Defendant operated a website community to foster activity tracking and the like at <https://www.humana.com/vitality/being-healthy/>. That website has been recently updated to allow data inputs realized by activity tracking products that were licensed under the patents-in-suit. *See Exhibit 8* (dated July, 2012). The family of FITBIT® devices, for example, have been licensed under the patents-in-suit and were the subject of litigation in this Court in the case styled *Cherdak v. Fitbit, Inc.*, Case No. 1:12-cv-01394-LO-

JFA. Defendant advertised that devices like and/or similar to the Fitbit® activity trackers were used to drive activity metrics tracking. *See Id.*; *see Exhibit 9*.

13. Since at least 2012 through expiration of the patents-in-suit, third-parties not party hereto were obligated under contract to include patent markings related to the patents-in-suit in connection with the sale, use, distribution, importation, manufacture and marketing of licensed sensor products, activity trackers, and corresponding web-based services covered by the patents-in-suit. For example, within the PEAR ONE™ product line manufactured and sold by Pear Sports, LLC, Pear Sports marked its products and related materials with the following patent legend: Products may be covered by one or more of the following patents until their expiration: USP 5,343,445 and USP 5,452,269. Products sold under license.

14. By way of example, and not limitation, Pear Sports, LLC is a non-exclusive licensee that was required to pay per-unit running royalties under a license agreement entered into between Plaintiff and Pear Sports, LLC. Others were required under similar contracts to include patent markings in relation to their products as follows: Covered by one or more of U.S. Patent Nos. 5,343,445 and 5,452,269. *See* http://www.bioness.com/L300_for_Foot_Drop.php. Such products operated based on determining when a shoe is off the ground and in the air during an activity such as during a step, a jump, etc. *See Exhibit 10* (this Honorable Court stating “[t]he 445 patent senses when a shoe leaves and returns to the ground.”). Such patent markings provided constructive notice to Defendant of the existence of the patents-in-suit and to their past infringement thereof.

COUNT I – PATENT INFRINGEMENT

15. Paragraphs 1 through 14 are hereby incorporated by reference as though completely set forth herein.

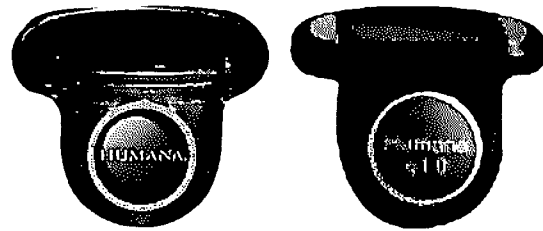
16. Given the validity and enforceability of the patents-in-suit against past infringing acts under the U.S. Patent Act (35 USC § 1, *et seq.*), Plaintiff, *inter alia*, possesses the right to pursue a claim against Defendant for its past, design, use, manufacture, importation, sale, offer for sale, and distribution of infringing products, namely, the accused products shown and described herein, under 35 USC § 271(a) (direct infringement), (b) (induced infringement), and (c) (contributory infringement). Defendants have infringed, contributed to the infringement of, and/or induced the infringement of the patents-in-suit in violation of 35 USC § 271(a), (b), and/or (c) by its design, use, manufacture, importation, distribution, sale, and offer for sale of products and services currently sold under the HUMANA VITALITY™ brand (e.g., the “g1.0” activity tracker). Such infringing products and related services included a foot-action sensor device that was used in combination with some type of manifestation device coupled to said foot-action sensor device or which has been remotely located and operated based on data derived from said foot-action sensor device (i.e., an activity tracker). Defendant refers to its foot-based sensor device as the “g1.0” product that has been configured to operated with a website designed and operated by Defendant.

12. The above-shown HUMANA VITATLITY activity tracker products (e.g., the “g1.0” activity tracker) infringed both of the patents-in-suit and, in particular, *at least*, the following claims thereof:

Claim 10 of U.S. Patent No. 5,343,445 C1	Exemplary Infringement HUMANA VITALITY™ Activity Trackers (g1.0 devices) (the Accused Products)
10. A method for measuring and indicating hang time off the ground and in the air during a jump by a person	The preamble of claim 10 literally reads on the Accused Products (Humana Vitality™ g1.0 Activity Trackers). Shown below, are two versions of the same SPORTBRAIN based activity tracker device. Se FIG. 2 above.

<p>wearing an athletic shoe, said method comprising the steps of:</p>	<div data-bbox="781 212 1321 443" data-label="Image"> </div> <p>Below is a HUMANA VITALITY Activity Tracker Accused Product in a retail sales package shown next to a like, permitted product in a retail sales package (e.g., the Virgin HealthMiles™ Activity Tracker).</p> <div data-bbox="837 611 1252 894" data-label="Image"> </div> <p>The Accused Products may be worn on a person's shoe to gather acceptable results. See Exhibit 7.</p>
<p>(a) measuring in the shoe elapsed time between the shoe leaving the ground and returning to the ground;</p>	<p>This claimed method step literally reads on the Accused Products. Elapsed time is measured between the shoe leaving the ground and returning to the ground. The display device of the Accused Products displays elapsed time.</p>
<p>(b) from the elapsed time measured in step (a), determining in said shoe whether said person has jumped off the ground or taken a walking or running step; and</p>	<p>This claimed method step literally reads on the Accused Products. Circuitry within the Accused Products include a sensor that is to determine whether a person has jumped off the ground, taken a walking step or a running step.</p>
<p>(c) upon determining in step (b) that the person has jumped off the ground, providing an indication at said shoe, perceptible to said person, of the elapsed time measured in step (a).</p>	<p>This claimed method step literally reads on the Accused Products. Upon determining in step (b) the person has jumped off the ground (e.g., during a running sequence involving a series of jumps, etc.), the Accused products will provide an indication at (in, on or near) the shoe of the elapsed time measured in step (a). The Accused Products include visual displays that provide indications of steps determined and sensed over time.</p>

<p>Claim 12 of U.S. Patent No. 5,452,269 C1</p>	<p>Exemplary Infringement HUMANA VITALITY™ Activity Trackers (g1.0 devices) (the Accused Products)</p>
<p>12. The method of measuring hang time off the ground and in the air of an individual, said method comprising the steps of:</p>	<p>The preamble of claim 12 literally reads on the Accused Products. Shown below, are two versions of the same SPORTBRAIN based activity tracker device. Se FIG. 2 above.</p>



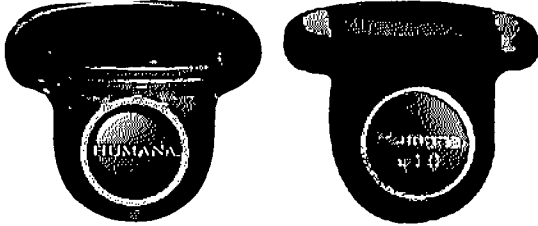
Below is a HUMANA VITALITY Activity Tracker Accused Product in a retail sales package shown next to a like, permitted product in a retail sales package (e.g., the Virgin HealthMiles™ Activity Tracker).

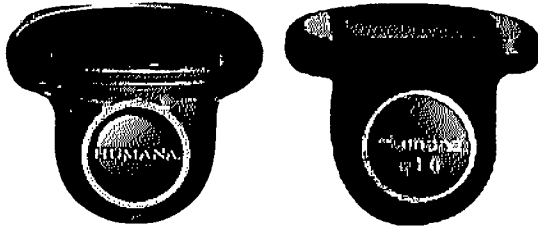


The Accused Products may be worn on a person's shoe and during activities like or involving jumps. See Exhibit 7.

(a) providing in an athletic shoe a selectively actuatable timing device;	This claimed method step literally reads on the Accused Products.
(b) actuating said timing device to measure elapsed time in response to said athletic shoe leaving the ground and elevating into the air;	This claimed method step literally reads on the Accused Products. Timing circuitry/processes within an Accused Product is actuated to measure elapsed time in response to an athletic shoe leaving the ground and elevating into the air to determine steps and step count at particular speeds. Speed is distance travelled over time.
(c) deactuating said timing device in response to said athletic shoe returning to the ground; and	This claimed method step literally reads on the Accused Products. Timing circuitry/processes within an Accused Product is deactuated upon the athletic shoe returning the ground.
(d) providing an indication at said athletic shoe representing the time interval between actuation of said timing device in step (b) and deactuation of said timing device in step (c).	The Accused Products provide an indication (e.g., pace, etc.) at (in, on or near) the athletic shoe. The indication is a visible indication and the number of steps, for example, represents the time interval between actuation and deactuation of timing device circuitry within an Accused Products. For example, 50 steps takes longer at speed (e.g., at 4+ mph) than does 20 steps taken at the same speed.

Claim 25 of U.S. Patent No. 5,343,445 C2	Exemplary Infringement HUMANA VITALITY™ Activity Trackers (g1.0 devices) (the Accused Products)
25. A method for indicating time off the ground and in the air during an activity including a jump, a walking step, a running step, or a skating lift by a person wearing an athletic shoe suitable to said activity, said method comprising the steps of:	The preamble of claim 25 literally reads on the Accused Products .

	 <p>The Accused Products may be worn on a person's shoe and during activities like or involving jumps.</p>
(a) sensing, within said shoe, pressure imparted to said shoe when said leaves the ground during said activity;	This claimed method step literally reads on the Accused Products. Whether a MEMS accelerometer (or another type of accelerometer) or a mechanical switching system (e.g., a pendulum switch), pressure (force over area) is realized by an Accused Device when a shoe leaves the during an activity like a step, lifting a shoe to a bike pedal, etc. There can be no triggering of a sensing element (e.g., a MEMS accelerometer or a mechanical switch) without the application of forces realized from application of pressure (force over area) applied to one shoe, for example.
(b) sensing, within said shoe, pressure imparted to said shoe when said shoe returns to the ground at the end of said activity; and	This claimed method step literally reads on the Accused Products. A sensor within an Accused Product senses the existence of pressure (force over area) imparted to the shoe when the shoe returns to the ground (e.g., at a heel strike, step-down, etc.) during an activity such as during a walking or running step, for example.
(c) activating, within said shoe, a messaging device in relation to the time interval between said shoe leaving and returning to the ground as sensed in steps (a) and (b), respectively, said messaging device providing an indication related to said time interval in a manner perceptible to said person.	This claimed method step literally reads on the Accused Products. Timing circuitry/processes within an Accused Product activates (e.g., sends data, signals, commands for operation, etc.) a messaging device that may be located at the shoe. The visual display of an Accused Device is configured to provide an indication <i>related</i> to said time interval occurring between when the shoe leaves and later returns to the ground .

Claim 27 of U.S. Patent No. 5,343,445 C2	Exemplary Infringement HUMANA VITALITY™ Activity Trackers (g1.0 devices) (the Accused Products)
27. The method according to claim 25, wherein said messaging device activated during said activating step (c) is worn on said person and remotely from said shoe.	<p>The preamble of claim 25 literally reads on the Accused Products .</p>  <p>The Accused Products may be worn on a person's shoe and during activities like or involving jumps. Additionally, the Accused Products may be worn on a person's hip or at another part of their body. See Exhibit 7 (Humana stating: "If the</p>

	pedometer didn't add at least 25 steps, try moving it either towards your navel or your hip. Then repeat first three steps above.")
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16. Discovery in this case will reveal all instances of past infringement such as may be related to additional products (*e.g.*, such as the HUMANA VITALITY “g2.0” activity tracker, etc.) and claims of the patents-in-suit. Notwithstanding, in addition to the exemplary instances of infringement shown in the tables presented above, at least the following additional claims have been infringed by the Defendant’s activity tracker product and service offerings: ‘445 Patent → Claims 1-28, ‘269 Patent → Claims 12, 13, 14, 16, 19 and 20.

17. Defendants products infringed the patents-in-suit both directly and indirectly under 35 USC §§ 271(a), (b) and (c) literally and/or under the Doctrine of Equivalents. Given the sole and intended purpose of Defendant’s activity tracker products to sense, measure, display and determine time-based foot-action metrics during activities in which a person’s foot leaves and returns to the ground, Defendant’s products were specifically designed to operate in non-staple infringing ways. And, on information and belief, Defendant has infringed the patents-in-suit in violation of 35 USC § 271(b) by actively inducing distributors, customers, and/or other retailers in the past to infringe the patents-in-suit through marketing and technical documentation means.

18. On information and belief, Defendants made (and/or have had made on their behalf) infringing products and have marketed the same throughout the U.S. and, in particular, in this judicial district of Virginia, USA.

19. Because of Defendants past infringing activities in the marketplace, Plaintiff has been injured. Thus, the U.S. Patent Act mandates that Plaintiff be granted a remedy including, but not limited to, damages for past infringement in an amount of no less than a reasonable royalty. The Court and Defendant Humana are informed that there already exists a written agreement between

Plaintiff and a non-party that calls for such reasonable royalties on a per-unit basis in relation to sales of activity tracker and related messaging devices that may be coupled thereto.

20. Because of the subjectively willful nature of Defendants' past infringing activities in violation of 35 USC § 271 (a), (b) and (c) especially in view of the fact that Humana is a direct competitor to Virgin Pulse, Inc., Plaintiff is entitled to enhanced damages of no less than trebled damages as permitted by the U.S. Patent Act (35 USC § 1, *et. seq.*), along with attorneys fees and costs of suit. In particular, Defendant (1) has acted despite an objectively high likelihood that its actions constituted infringement of the valid, enforceable patents-in-suit, and (2) has so acted despite an objectively high risk of infringement that was known or was so obvious that it should have been known by Defendant. Defendant] has had ample time to put forth a basis for a defense to infringement and to present the same to Plaintiff, yet, to date, has failed to do so. Defendant is a large company who knows that its accused products are the same as

PRAYER FOR RELIEF

WHEREFORE, Plaintiff prays for judgment and relief against Defendants as follows:

1. For a judgment that the Cherdak patents-in-suit were infringed by Defendants (including, but not limited to, their subsidiaries, predecessors-in-interest and business units however and wherever formed, etc.) each standing alone as described herein as they have and continue to act independently to bring to market and encourage the infringing use of products within their respective product lines;
2. That an accounting be had for damages to Plaintiff by Defendant's past acts in violation of the U.S. Patent Act (35 USC § 1, *et seq.*) together with pre-judgment and post-judgment interest and costs of suit;
3. That damages be assessed at no less than a reasonable royalty in regard to the acts of infringement by Defendant as complained of herein;

4. That any damages awarded in accordance with any prayer for relief be enhanced and, in particular, trebled in accordance with the U.S. Patent Act (35 USC § 1, *et seq.*) for Defendant's acts which are found to have been willful acts of patent infringement; and
5. Such other and further relief as this Court shall deem just and proper.

DEMAND FOR TRIAL BY JURY

The Plaintiff hereby demands a TRIAL BY JURY on all issues so triable.

Respectfully submitted,



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Alexandria, Virginia 22314
(202) 330-1994
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Date:

8/20/2014

Exhibits List:

- 1 U.S. Patent No. 5,343,445
- 2 Reexamination Certificate for U.S. Patent 5,343,445 C1
- 3 Reexamination Certificate for U.S. Patent 5,343,445 C2
- 4 U.S. Patent No. 5,452,269
- 5 Reexamination Certificate for U.S. Patent 5,452,269 C1
- 6 Reexamination Certificate for U.S. Patent 5,452,269 C2
- 7 Humana Vitality Activity Tracker Instructions
- 8 Humana Vitality Activity Tracker Compatibility Chart
- 9 Memorandum Opinion in Case No. 1:11-cv-1311 LO/jfa dated 4/23/2012